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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,410	04/24/2000	Kurt Heaton	TIVO0020	9083
7590 07/08/2004				
Hickman Palermo Truong & Becker LLP		EXAMINER		
1600 Willow Street		LONSBERRY, HUNTER B		
San Jose, CA 95125-5106				
		ART UNIT	PAPER NUMBER	
		2611	6	

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/558,410

Applicant(s)

HEATON ET AL.

Examiner

Hunter B. Lonsberry

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Objections***

Claim 39 objected to because of the following informalities: two claims are numbered claim 39. Appropriate correction is required.

For examination purposes, the examiner has treated the independent claim 39 as claim 40.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 10-12, 20-26, 30, 31 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,530,085 to Perlman in view of U.S. Patent 6,057,874 to Michaud.

Regarding claims 1, 2, 7, 20, 21, 26, Perlman discloses in figure 6, an IR blaster cable 94, which is coupled to internet terminal 20, when a user initiates a channel change command, terminal 20 transmits a control packet via the IR interface to control what channel STB 64 is tuned too, (Figure 6, column 10, line 24-column 11, line 46, column 17, lines 21-47).

Perlman does not disclose the use of an IR control database residing on a mass storage system, but does disclose that IEEE 1394 signals may be transmitted which include IR information to control different consumer electronic devices, and discloses

the use of IEEE 1394 cables to control legacy devices which don't conform to the IEEE 1394 standard (column 12, line 55-column 13, line 9, column 17, lines 26-47).

Michaud discloses a hard drive which stores control codes to operate a number of VCRs according to manufacturer and model number, a user utilizes a validation procedure to select their VCR, and stores that control code, enabling a set top terminal to control VCR via an IR interface, the database is updated by downloading data via modem (column 3, lines 16-28, column 4, line 9-column 5, line 5, lines 22-61).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Perlman to utilize a hard drive which stores a database of control codes for different models and manufacturers and downloads the information via a modem as taught by Michaud, thus enabling a user to control newer devices.

Regarding claims 3, 4, 22 and 23, Michaud and Perlman disclose that a user may control a device through a remote control.

Perlman and Michaud do not disclose the use of multiplexed serial queued communications.

The examiner takes official notice that queuing multiplexed serial communications is well known in the art.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Perlman and Michaud to queue multiplexed serial commands, thus enabling multiple devices to be controlled at the same time, and allowing multiple commands to be transmitted to the same device without the user re-entering the same command.

Regarding claims 5, 24, 25, Perlman discloses that the Internet terminal is able to control multiple IR enabled consumer electronics devices by providing IR connectors to each device, a single remote may then be used to control all the devices as the Internet terminal relays the command to the appropriate device (Figure 5, column 10, lines 24-36).

Perlman inherently receives IR control entries and stores them in a database, otherwise Perlman would not know the proper frequency and coding scheme that each device uses, and thus would be unable to communicate with each device.

Regarding claim 6, Michaud discloses a hard drive which stores control codes to operate a number of VCRs according to manufacturer and model number, a user utilizes a validation procedure to select their VCR, by entering the proper data the list of VCRs is parsed until the compatible device is listed, control code is stored enabling a set top terminal to control VCR via an IR interface, the database is updated by downloading data via modem (column 3, lines 16-28, 46-53, column 4, line 9-column 5, line 5, lines 22-61).

Regarding claims 10, 29, Michaud discloses a hard drive which stores control codes to operate a number of VCRs according to manufacturer and model number, a user utilizes a validation procedure to select their VCR, and stores that control code, enabling a set top terminal to control VCR via an IR interface, the database is updated by downloading data via modem (column 3, lines 16-28, 46-53, column 4, line 9-column 5, line 5, lines 22-61).

Perlman and Michaud do not disclose correcting information.

The examiner takes official notice that updates to database entries are well known in the art.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Perlman and Michaud to update the IR database with corrections, thus enabling a user to control an associated device, if the original entry was incorrect.

Regarding claims 11, 12, 30 and 31, Perlman discloses the use of a WebTV Plus unit, which enables a user to control multiple devices via an IR interface.

Perlman inherently receives IR control entries and stores them in a database, otherwise Perlman would not know the proper frequency and coding scheme that each device uses, and thus would be unable to communicate with each device.

Michaud discloses a hard drive 102 located within a sever device within headend 12 that includes a database which contains stores control codes 108 to operate a number of VCRs according to manufacturer 104 and model number 106, a user utilizes a validation procedure to select their VCR, by entering the proper data the list of VCRs is parsed until the compatible device is listed, a second copy of the control code is stored at the set top box within RAM 121, thus enabling a set top terminal to control VCR via an IR interface, the database is updated by downloading data via modem (column 3, lines 16-28, 46-53, column 4, line 9-column 5, line 5, lines 22-61).

Perlman and Michaud do not disclose the use of a mass storage device within a first computer to store IR codes.

The examiner takes official notice that the use of a hard drive within WebTV Plus devices is well known in the art (<http://www.n2ty.org/newsletter/980205.htm>).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Perlman and Michaud to utilize a hard drive within the Internet terminal to store IR codes, thus enabling the IR codes to be updated with new codes and to take advantage of the higher capacity of a hard drive.

Regarding claim 40, Perlman discloses in figure 6, an IR blaster cable 94, which is coupled to internet terminal 20, when a user initiates a channel change command, terminal 20 transmits a control packet via the IR interface to control what channel STB 64 is tuned too, (Figure 6, column 10, line 24-column 11, line 46, column 17, lines 21-47).

Perlman does not disclose the use of an IR control database residing on a mass storage system, but does disclose that IEEE 1394 signals may be transmitted which include IR information to control different consumer electronic devices, and discloses the use of IEEE 1394 cables to control legacy devices which don't conform to the IEEE 1394 standard (column 12, line 55-column 13, line 9, column 17, lines 26-47). Perlman also fails to disclose a corrections database.

Michaud discloses a hard drive which stores control codes to operate a number of VCRs according to manufacturer and model number, a user utilizes a validation procedure to select their VCR, and stores that control code, enabling a set top terminal to control VCR via an IR interface, the database is updated by downloading data via modem (column 3, lines 16-28, column 4, line 9-column 5, line 5, lines 22-61).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Perlman to utilize a hard drive which stores a database of control

codes for different models and manufacturers and downloads the information via a modem as taught by Michaud, thus enabling a user to control newer devices.

Michaud fails to disclose corrections to a database.

The examiner takes official notice that updates to database entries are well known in the art.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Perlman and Michaud to update the IR database with corrections, thus enabling a user to control an associated device, if the original entry was incorrect.

Claims 8, 9, 13-19, 27, 28, and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,530,085 to Perlman in view of U.S. Patent 6,057,874 to Michaud in further view of U.S. Patent 6,239,718 to Hoyt.

Regarding claims 8, 9, 17, 27, 28, and 36 Perlman and Michaud disclose a system in which IR codes are stored on a hard drive, a user may search a database and select a code for their device.

Perlman and Michaud do not disclose a prototype IR control database and a timing interface.

Hoyt discloses a learning remote control, which may be implemented in a VCR or other remote device (column 7, lines 4-18), in which a user follows a setup process, the user then inputs a control command sequence such as ">12,1,5" to tune to channel 15, the >12 prefix corresponds to a Sony television, this information is stored, and the necessary prefix is send for each time a user transmits a new command, so that the



proper device may interpret the command, multiple devices may be setup and their control information is stored locally, a timer is utilized to monitor when a user has completed a desired command sequence (column 5, lines 55-65, column 6, line 35-column 9, line 23).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the hard drive of Perlman and Michaud to utilize the learning remote control codes of Hoyt to enable the control of new equipment in a user's a/v system.

Regarding claims 13, 14, 32, 33, Perlman and Michaud disclose utilizing IR codes to control an external device.

Perlman and Michaud do not disclose IR control syntax specifications.

Hoyt discloses that a user may pres 0,5 to tune to channel 5, but in order to tune to a channel greater than 9, a user would input 0,1,5, to tune to a channel 15 (column 3, lines 51-65).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Perlman and Michaud to utilize the syntax as taught by Hoyt, to enable a user to easily change a channel and reduce the number of keys a user needs to press.

Regarding claim 15 and 34, Hoyt discloses the use of an enter command which is utilized as a delimiter (column 9, lines 8-10).

Regarding claim 16 and 35, , Hoyt discloses that a timer is utilized to monitor when a user has completed a desired command sequence (column 9, lines 9-13).

Regarding claim 18-19, 37-39, Perlman discloses a switch in figure 9b, which switches between 3 inputs.

Hoyt discloses the use of a prefix.

Perlman, Michaud and Hoyt do not disclose the use of A/B/C prefix.

The examiner takes official notice that the use of a command to switch inputs, instead of a user toggling a switch is well known in the art. For example, pressing a video button on a remote control for a television may cause a television to switch inputs from a set top box, to a video game console or to a VCR.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Perlman, Michaud and Hoyt to utilize an input switching command, thus enabling a user to view programs from different sources on the same display device without having to walk to a device to throw a switch themselves.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,169,879 to Perlman: System and Method of Interconnecting and Using Components of Home Entertainment System.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-

305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL



VIVEK SRIVASTAVA  
PRIMARY EXAMINER